

CLAIMS

1. A hot melt pressure sensitive adhesive composition for adhering together roofing materials comprising:

5 a) a rubbery polymer comprising a blend of i) from about 10 to about 25% by weight of a thermoplastic block copolymer selected from the group consisting of a styrene-butadiene-styrene block copolymer, a styrene-isoprene-styrene block copolymer, a styrene-ethylene/butylene-styrene block copolymer, a styrene-ethylene/propylene block copolymer and an ethylene-propylene block copolymer and combinations thereof and ii) from about 5% to about 20% by weight polyisobutylene;

10 b) a compatible tackifier; and

c) an amorphous polyolefin.

2. The article as claimed in claim 1 wherein said thermoplastic block copolymer comprises

15 from about 15 to 20% by weight of the total adhesive composition.

3. The article as claimed in claim 1 wherein said polyisobutylene comprises from about 10% to 15% by weight of the total adhesive composition.

20 4. The adhesive composition as claimed in claim 1 wherein said tackifier is selected from the group consisting of hydrogenated polycyclic resins, aliphatic hydrocarbon resins, aromatic hydrocarbon resins, coumarone indene resins, esters of hydrogenated rosins and combinations thereof.

25 5. The adhesive composition as claimed in claim 1 wherein said amorphous polyolefin is selected from the group consisting of amorphous polypropylene-ethylene copolymers, amorphous polypropylene/polypropylene-ethylene copolymers, amorphous polypropylene homopolymers, amorphous polyethylene homopolymers and combinations thereof.

6. The adhesive composition as claimed in claim 1 further comprising butyl rubber.
7. The adhesive composition as claimed in claim 1 further comprising an antioxidant.
- 5 8. The adhesive composition as claimed in claim 1 further comprising a compatible plasticizer.
9. The adhesive composition as claimed in claim 8 wherein said plasticizer is selected from the group consisting of polybutene, chlorinated paraffin and combinations thereof.
- 10 10. The adhesive composition as claimed in claim 1 further comprising a reinforcing agent.
11. The adhesive composition as claimed in claim 8 wherein said reinforcing agent comprises silica.
- 15 12. The adhesive composition of claim 1 further comprising a flame retardant.
13. The adhesive composition of claim 12 wherein said flame retardant is selected from the group consisting of antimony oxide, decabromodiphenyl oxide, tetrabromodiphenyloxybenzene, hexabromocyclododecane, ethane-1,2-bis(pentabromophenyl), ethylenebistetrabromophthalimide and combinations thereof.
- 20 14. The adhesive composition as claimed in claim 1 including a release liner adhered to said adhesive composition.

15. A first roofing membrane adhered to a second roofing membrane with an adhesive composition which provides a water tight seal, said adhesive composition comprising:

5 a) a rubbery polymer comprising a blend of i) a thermoplastic block copolymer selected from the group consisting of a styrene-butadiene-styrene block copolymer, a styrene-isoprene-styrene block copolymer, a styrene-ethylene/butylene-styrene block copolymer, a styrene-ethylene/propylene block copolymer and an ethylene-propylene block copolymer and combinations thereof and ii) a polyisobutylene; and

10 b) a compatible tackifier; wherein said adhesive composition exhibits 180° peel strength at room temperature of at least 500 grams/cm.

15 16. The article as claimed in claim 15 wherein said tackifier is selected from the group consisting of hydrogenated polycyclic resins, aliphatic hydrocarbon resins, aromatic hydrocarbon resins, coumarone indene resins, esters of hydrogenated rosins and combinations thereof.

15 17. The article as claimed in claim 15 wherein said adhesive composition further comprises an amorphous polyolefin.

20 18. The article as claimed in claim 17 wherein said amorphous polyolefin is selected from the group consisting of amorphous polypropylene-ethylene copolymers, amorphous polypropylene/polypropylene-ethylene copolymers, amorphous polypropylene homopolymers, amorphous polyethylene homopolymers and combinations thereof.

25 19. The article as claimed in claim 15 wherein said thermoplastic block copolymer comprises from about 10 to about 25% by weight of the total adhesive composition.

20. The article as claimed in claim 15 wherein said polyisobutylene comprises from about 5% to about 20% by weight of the total adhesive composition.

21. The article as claimed in claim 15 wherein said thermoplastic block copolymer comprises from about 15 to 20% by weight of the total adhesive composition.
22. The article as claimed in claim 15 wherein said polyisobutylene comprises from about 10
5 to 15% by weight of the total adhesive composition.
23. The article as claimed in claim 15 wherein said adhesive composition further comprises a compatible plasticizer.
- 10 24. The article as claimed in claim 15 wherein said adhesive composition further comprises butyl rubber.
25. The article as claimed in claim 13 wherein said adhesive composition supports a static
load of at least 50 grams/in² at 70 °C for at least 96 hours.